

Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
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| In the Matter of |) | |
| |) | |
| Application of Verizon for Authority to |) | WC Docket No. 02-237 |
| Discontinue Expanded Interconnection |) | |
| Service through Physical Collocation |) | |

OPPOSITION OF WORLDCOM, INC.

On August 16, 2002, Verizon filed a petition seeking authority to discontinue the provision of expanded interconnection via physical collocation in the former Bell Atlantic region. Well, not exactly. In fact, Verizon's petition is little more than a cynical ploy to game the regulatory process. Through jurisdictional sleight-of-hand, Verizon proposes to remove its continued provision of expanded interconnection to interstate services via physical collocation from the jurisdiction of this Commission to the jurisdictions of 14 different state commissions. Verizon's alleged justification for this is the prevention of arbitrage. Verizon's claim is unsubstantiated and, in any case, ridiculous. The Commission must reject this petition.

I. Background

In 1994, on remand of a prior order from an appellate court, the Commission issued its *Expanded Interconnection Order*.¹ Therein, the Commission ordered local exchange carriers (LECs) to provide expanded interconnection for both interstate special access and switched transport services through generally available virtual collocation

¹ 9 FCC Rcd 5154.

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services no later than December 15, 1994. Companies that chose instead to offer physical collocation pursuant to certain standards, were exempted from this requirement.² The Commission found its primary legal authority to adopt these expanded interconnection rules in section 201(a) of the Communications Act of 1934, as amended.³

In the *Expanded Interconnection Order*, the Commission cautioned that:

a LEC that has chosen to provide physical collocation in particular central offices will not be permitted to withdraw its physical collocation offering for customers' existing collocation nodes at those offices, for either current or new circuits, without Commission certification that such discontinuation of service will not adversely affect the present or future public convenience and necessity.⁴

The Commission also made it clear that even where a LEC provided expanded interconnection to intrastate services pursuant to a state tariff for physical collocation, that LEC would not be exempt from the Commission's virtual collocation requirement, unless it filed a federal physical collocation tariff.⁵ Thus, the Commission did not allow LECs to escape their obligation to file federal tariffs for expanded interconnection to interstate services simply by sweeping their offering within an intrastate tariff.

II. Verizon's Petition

Verizon chose to offer expanded interconnection to interstate special access and switched transport services via physical collocation (and in so doing consented to common carrier regulation including tariff requirements). But now Verizon claims that variations between its federal and state physical collocation tariffs have encouraged "tariff-shopping" and "arbitrage."⁶ Verizon intends to eliminate its federal tariff for

² *Id.*, ¶ 3.

³ *Id.*, ¶ 18.

⁴ *Id.*, ¶ 32.

⁵ *Id.*, ¶ 74.

⁶ Petition at 2-3.

expanded interconnection to interstate special access and switched transport services via physical collocation.

Verizon would accomplish this by partially “grandfathering” existing physical expanded interconnection collocations. That is, customers would have the option of continuing to be billed for space-related charges and in-place cross-connects under the existing federal tariff. But all other aspects of an existing interstate expanded interconnection physical collocation arrangement would be billed under state tariffs and interconnection agreements. These include: DC power; new cross-connects; augments; new cable racking; new entrance cabling; changes, additions, or rearrangements of space; and other services. Existing customers would have the option of accepting this partial “grandfathering” or converting their arrangements entirely to state-regulated arrangements. New collocation arrangements would be available only pursuant to Verizon’s federal virtual collocation tariff, or to state collocation tariffs and interconnection agreements.

Verizon’s petition seeks authority to withdraw its federal tariff for expanded interconnection to interstate special access and switched transport services via physical collocation. Verizon claims that this “discontinuance” of service is in the public interest since customers will be able to obtain adequate substitute service. That is, customers can partially or completely convert existing arrangements to state arrangements, and can order new services either as federal virtual arrangements, or as state physical (or possibly virtual) arrangements. As a matter of law, the Commission does not have the authority to grant this petition. Even if the Commission had such authority, as a matter of sound public policy, it could not grant it.

III. Argument

A. Verizon's proposal to offer expanded interconnection to interstate services under state tariffs is unlawful.

It is unlikely that an expanded interconnection customer that has already made the sunk cost investment in a physical collocation arrangement would scrap that investment, and rely in the future on Verizon's federal virtual collocation tariff. Such customers, according to Verizon, can purchase expanded interconnection to interstate special access and switched transport services pursuant to state tariffs and interconnection agreements. As described above, Verizon will only partially "grandfather" those existing arrangements, and will require all supporting services and new cross-connects to be ordered from state tariffs. There is no lawful basis upon which Verizon can require customers to purchase these interstate services under terms and conditions found in state tariffs.

The Commission ordered LECs to provide expanded interconnection pursuant to its authority under section 201(a) of the Communications Act.⁷ In so doing the Commission explicitly stated that, by choosing to offer physical collocation, a LEC would make itself subject to common carrier regulation.⁸ Under section 203(a) of the Act, all services subject to the Commission's jurisdiction under section 201 must be federally tariffed.⁹

The Commission recently reiterated that this requirement is mandatory under section 203(a). On September 4, 2002, the Commission released an *Order on Reconsideration* in which it found, under section 203(a), that incumbent LECs "must file

⁷ *Supra.*

⁸ *Expanded Interconnection Order*, ¶ 31.

⁹ 47 U.S.C. § 203(a).

tariffs for cross-connect offerings made pursuant to section 201 *at the federal level*.¹⁰

While this particular order specifically addressed cross-connects between collocated carriers, there is no reason to think that the legal rule does not apply equally to cross-connects and support services for interstate expanded interconnection. Ironically, in this recent proceeding the Commission and Verizon agreed that cross-connects provisioned pursuant to section 201 must be federally tariffed.¹¹ Yet here Verizon would eliminate its federal tariff for expanded interconnection to interstate services via physical collocation, while continuing to offer that service under state tariffs and agreements.

B. Verizon's petition to "discontinue" providing these services is both disingenuous and contrary to the public interest.

Under section 214(a) of the Communications Act and section 63.71 of the Commission's rules, common carriers must seek authority from the Commission to discontinue, reduce, or impair the provision of service to a community or part of a community.¹² Such authority can be granted only when it is consistent with the public interest, convenience and necessity. The touchstone of this inquiry is the adequacy of substitute service that is available to the carrier's customers. Where no adequate substitute service is available, the Commission will not grant a discontinuance petition.¹³

Verizon might have filed a petition seeking authority to discontinue its provision of expanded interconnection to interstate services via physical collocation, and argued that its federal tariff for virtual collocation represented an adequate substitute. But such

¹⁰ In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, ¶ 9 (emphasis added); citing 47 U.S.C. § 203(a), and *MCI Telecommunications Corp. v. AT&T*, 512 U.S. 218 (1994).

¹¹ *Id.*, ¶ 8; citing Verizon Oct. 22, 2001 Comments.

¹² 47 U.S.C. § 214(a); 47 C.F.R. § 63.71.

¹³ See, e.g., Public Notice DA 01-1869 (notifying Pathnet, Inc. that its discontinuance application was not automatically granted, and that it continue providing service until such time as its customers could receive adequate substitute service), NSD File No. W-P-D-503 (rel. August 3, 2001).

an argument would undoubtedly have failed -- at least with respect to customers that have already established physical collocation nodes. Customers that have made the sunk cost investment in physical collocation would see the value of that investment wiped out by a true discontinuance. Verizon tries to finesse this problem by proposing to offer these customers continued expanded interconnection to interstate services pursuant to state tariffs and interconnection agreements. However, as demonstrated above, it is unlawful for Verizon to offer interstate expanded interconnection without a federal tariff.

Verizon's petition, in fact, does not propose the discontinuance of anything. It proposes to eliminate a federal tariff, and continue to offer the services currently contained in that tariff under state tariffs and interconnection agreements. Leaving aside the fact that there is no legal basis for this jurisdictional shell game, the Commission cannot authorize it because the public interest does not support it. The Commission cannot rely on state commissions to protect the federal rights of these customers of interstate services.

If the Commission abandons its regulation of these services, it will have no assurance that any individual state will continue to require that they be provided at all, never mind that they be provided in a manner consistent with federal law. Verizon has not shown that any of the relevant state commissions are empowered to enforce customers' rights under federal law. Moreover, in at least one instance, Verizon has recommended to a state commission that physical collocation be prohibited in certain Verizon central offices.

Various provisions of federal law protect Verizon's expanded interconnection customers from unjust, unreasonable, and discriminatory practices on Verizon's part. For

example, sections 201 and 202 of the Communications Act protect Verizon's customers from unjust and unreasonable practices with respect to service and charges, and from unjust and unreasonable discrimination.¹⁴ As described above, section 203 requires Verizon to file tariffs for its charges.¹⁵ Other sections of the Communications Act provide Verizon's customers with additional substantive rights and, of equal importance, with procedural rights to ensure that substantive rights are enforced. This Commission is the primary body authorized by law to oversee Verizon's compliance with its duties under the Communications Act.

If granted, Verizon's petition would deprive this Commission of jurisdiction over Verizon's provision of physical collocation for expanded interconnection to interstate services. Under Verizon's scheme, those services would fall instead within the jurisdictions of 14 different state commissions. Yet Verizon has made no showing that those state commissions are authorized to protect the federal substantive and procedural rights of Verizon's interstate expanded interconnection customers. Indeed, it seems unlikely that the state laws establishing those commissions provide them with authority to enforce federal communications law.

A concrete example of the very real risks that Verizon's scheme would entail for the rights of Verizon's interstate expanded interconnection customers, is provided by recent Verizon testimony in Massachusetts seeking permission to make sweeping changes in Verizon's collocation policies.¹⁶ In that testimony (attached to this opposition) Verizon argued that security measures authorized by this Commission were

¹⁴ 47 U.S.C. § § 201,202.

¹⁵ 47 U.S.C. § 203.

¹⁶ Commonwealth of Massachusetts Department of Telecommunications and Energy, Investigation by the Department on its own motion, pursuant to G.L. c.159 § § 12 and 16, into the collocation security practices

inadequate. Verizon urged the Department, *inter alia*, to classify certain central offices as “virtual collocation” only sites.¹⁷ Existing customers in these locations would be forcibly migrated to virtual collocation arrangements. Between these two proceedings, Verizon would extinguish rights established by federal communications law, without any review by this Commission. It is plain that abdication of the Commission’s jurisdiction over Verizon’s provision of expanded interconnection to interstate services via physical collocation is contrary to the public interest.

C. Verizon’s “arbitrage” concerns are nonsensical.

Verizon’s purported justification for filing this petition – that customers are engaged in “arbitrage” and “tariff-shopping” – is nothing less than a complaint about the dual-jurisdictional nature of communications regulation. Any number of services offered by Verizon are tariffed at both the federal and state levels. For example, Verizon maintains both federal and state tariffs for switched and special access services. If Verizon’s logic were sound, Verizon would similarly be able to “discontinue” providing interstate switched access services on the theory that its intrastate switched access services constituted an acceptable substitute. Of course this is absurd, as is the instant petition.

It is noteworthy that Verizon has provided neither evidence nor explanation of the “arbitrage” that afflicts it. Verizon has not explained the relationship between the prices in its state and federal tariffs that causes this arbitrage. If Verizon has particular concerns about rates in its federal tariff, it is free to propose tariff changes. In the alternative, Verizon could undoubtedly harmonize its tariffs by, for every rate element, reducing rates

of Verizon New England Inc. d/b/a Verizon Massachusetts, D.T.E. 02-8, Panel Testimony of Verizon Massachusetts (April 5, 2002).

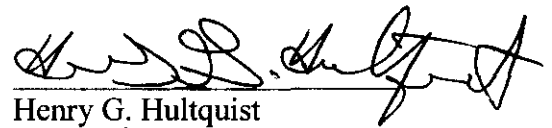
to the lowest rate it has tariffed in any jurisdiction. No customer would be harmed by such changes, and Verizon would eliminate all concerns about arbitrage. Instead, Verizon has filed this unprecedented petition to remove interstate services from the jurisdiction of this Commission.

IV. Conclusion

Verizon's proposal to remove its provision of interstate expanded interconnection via physical collocation from this Commission's jurisdiction lacks any legal or policy justification. Verizon proposes simultaneously to discontinue providing service and to continue providing the same service under different terms and conditions. For the reasons described above, the Commission should recognize this petition for the sham that it is and dismiss it with prejudice.

Respectfully submitted,

WorldCom, Inc.



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September 18, 2002

¹⁷ *Id.* at 5.

ATTACHMENT A

PANEL TESTIMONY OF VERIZON MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

**Investigation by the Department on its own motion,
pursuant to G.L. c.159 § § 12 and 16, into the
collocation security policies of Verizon New
England Inc. d/b/a Verizon Massachusetts**

D.T.E. 02-8

PANEL TESTIMONY OF VERIZON MASSACHUSETTS

Members of the Panel:

**Lawrence R. Craft
Francesco S. Mattera
Lynelle Reney
Peter Shepherd**

April 5, 2002

1 **PURPOSE OF TESTIMONY**

2 Q. What is the purpose of this testimony?

3 A. In this testimony, Verizon Massachusetts (“Verizon MA”) addresses issues raised
4 by the Department’s *Order to Investigate* issued January 24, 2002, in this
5 proceeding, regarding the Company’s existing collocation security policies
6 established as a result of the Department’s findings in D.T.E. 98-57, Phase I.¹
7 *Order to Investigate*, at 1. As stated in its *Order to Investigate*, the Department’s
8 intent is to review its prior findings with respect to access by personnel of other
9 carriers to Verizon’s central offices and other facilities, and to assess whether the
10 security measures adequately protect the telecommunications network and
11 facilities in light of heightened security concerns following the September 11,
12 2001, terrorist attacks in New York City and Washington, D.C.. *Order to*
13 *Investigate*, at 1. Specifically, the Department’s investigation will include, but
14 not be limited to, an examination of the following issues: (1) the extent and nature
15 of appropriate access by personnel of other carriers to Verizon’s central offices
16 and other facilities [*e.g.*, remote terminals] for accessing collocation sites;
17 (2) whether cageless collocation arrangements remain an acceptable security risk;
18 (3) the adequacy of security measures implemented in Verizon’s central offices

¹ See D.T.E. 98-57, Phase I, *Order*, at 24-39, 59-62 (March 24, 2000); D.T.E. 98-57, Phase I, *Reconsideration Order*, at 6-16, 66 (September 7, 2000); D.T.E. 98-57, Phase I, *Phase I-B Order*, at 16-20 (May 24, 2001).

1 and other facilities, focusing on preventive, rather than “after-the-fact,” measures;
2 and (4) any other related security issues. *Id.* at 7.

3 Verizon MA’s testimony examines the various currently available collocation
4 arrangements and the applicable security measures for central offices (“CO”) and
5 other collocated facilities. Based on the increased potential for network harm
6 resulting from the presence of physical collocation and Verizon’s experience with
7 security breaches in Massachusetts and elsewhere, the Company concludes that
8 current collocation security measures must be adequately strengthened “to
9 safeguard the telecommunications networks from tampering,” and thereby
10 “ensure that reliable service to competing telecommunications service providers,
11 businesses, and residents of the Commonwealth is not unreasonably at risk” in a
12 post-September 11th world, as the Department suggests. *Id.* at 2.

13 Verizon MA recognizes that the “reasonable” security measures permitted by the
14 Federal Communications Commission (“FCC”), such as cameras, electronic card
15 readers, or badges with computerized tracking systems,² can provide detection for
16 security breaches “after the fact,” and may even *deter* them in some cases.
17 However, deploying such equipment is not enough for Verizon MA to *prevent*
18 unauthorized access to its COs or to unsecured areas within the COs.
19 Unauthorized CO access can also jeopardize Verizon MA’s ability to protect even

² See *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Fourth Report and Order, CC Docket No. 98-147, FCC 01-204 (rel. Aug. 8, 2001) (“*FCC Remand Order*”), on remand from the U.S. Court of Appeals’ decision in *GTE Service Corporation v. FCC*, 205 F.3d 416 (D.C. Cir. 2000) (“*GTE Service Corporation*”).

1 its "secured" space *within* the restricted areas of the CO. Accordingly, the
2 Department should allow Verizon MA to take the necessary *pro-active* steps to
3 prevent damage to the critical telecommunications infrastructure that can occur
4 either accidentally or intentionally when carriers have access to COs in a
5 physically collocated environment.

6 Without such pro-active security measures, Verizon's network, as well as the
7 facilities and equipment of collocated carriers, remain exposed to an increased
8 risk of harm. Although pro-active security measures (*e.g.*, separate space and
9 separate entrances) cannot totally eliminate security risks, they can substantially
10 minimize them and, thus, better protect and preserve the network in a physically
11 collocated environment so that Verizon MA and other service providers can
12 maintain uninterrupted service for their end-user customers, which include state
13 and federal government installations and business that are critical to the public
14 welfare.

15 Q. Please explain briefly Verizon MA's proposed security measures at collocated
16 COs.

17 A. Verizon MA believes that the most effective means of ensuring network safety
18 and reliability is to eliminate physical collocation entirely in all its COs,
19 converting existing physical collocation arrangements to virtual and requiring that
20 all future collocation arrangements be virtual only. However, the Company
21 recognizes that this is not a practical solution from a legal and regulatory

1 perspective at this time. Therefore, Verizon MA proposes that the following *pro-*
2 *active* collocation security measures be adopted based upon the potential for
3 network harm and Verizon's experience with security breaches in Massachusetts
4 and elsewhere.

5 They are: (1) the establishment of separate space with separate entrances and/or
6 pathways for all forms of physical collocation (*i.e.*, caged and cageless) to secure
7 and segregate collocators' equipment from Verizon MA's equipment and no
8 commingling of collocators' equipment in the same rooms as Verizon MA's
9 equipment without some reasonable means of physical separation (*e.g.*,
10 partitioning) and secured access; (2) the relocation of existing *unsecured* cageless
11 collocation arrangements to a secured and segregated area of the CO or the
12 conversion of such arrangements to virtual collocation where secured CO space is
13 unavailable; (3) the provision of reasonable access to shared facilities (*e.g.*,
14 temporary staging areas, elevators, loading docks, restrooms, etc.)³ that are
15 located outside the secured and segregated collocators' space either by
16 partitioning Verizon MA's equipment, if feasible, or through the use of escorts at
17 the collocated carrier's expense; (4) the requirement to provide virtual collocation
18 and/or escorts at physically collocated remote terminal ("RT") sites; and (5) the
19 development of more stringent measures in critical, "high" security risk COs, *i.e.*,

³ See *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, First Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 98-147, 14 FCC Rcd 4761, at ¶ 49 (March 31, 1999) ("*FCC Advanced Services Order*") (requiring that collocated carriers be allowed "reasonable access to basic facilities" while at the incumbent LEC's premises).

1 classify such COs as “virtual collocation only” sites. In that regard, Verizon MA
2 would propose to work with the Department in determining which COs would be
3 so classified, and to convert existing physical collocation arrangements to virtual
4 collocation in those designated COs, subject to Department approval.

5 Notwithstanding the above proposed pro-active security measures, Verizon MA
6 also plans to deploy and indeed enhance the use of various security devices (*e.g.*,
7 electronic card reader systems, cameras, etc.), as appropriate, based on the needs
8 of the particular CO.⁴ Verizon MA also plans to implement an in-depth, pre-
9 screening of collocated carrier personnel designated to access physical collocation
10 arrangement in its COs as a requirement of providing identification badges. This
11 is consistent with Verizon’s more stringent pre-screening and background checks
12 for its employees and vendors that are being adopted as part of its nationwide
13 efforts to enhance security in its COs since September 11th.

14 Verizon MA believes that these proposed security measures and enhancements
15 are necessary because of the present network architecture and configuration of
16 equipment and facilities in Verizon MA’s COs and RTs. Such measures will
17 better protect the telecommunications network from harm in today’s environment,
18 as well as maximize safety and security for employees and agents of Verizon and

⁴ For example, Verizon plans to expand the number of COs equipped with electronic card reader systems (“CRAS”), in lieu of locked key access.

1 collocated carriers.⁵ Strengthened security procedures will also reduce the degree
2 of risk to Verizon MA's facilities, and further enable the Company to provide
3 reliable service to end user and carrier customers alike in Massachusetts.

4 **WITNESS PANEL**

5 Q. Please identify the name and business address of the individual panel members
6 testifying on behalf of Verizon MA in this collocation security investigation.

7 A. The members of this panel, in alphabetical order, are: Mr. Lawrence R. Craft, Mr.
8 Francesco S. Mattera, and Ms. Lynelle Reney. Mr. Craft's business address is
9 1320 North Courthouse Road, Arlington, Virginia; Mr. Mattera's business address
10 is 125 Circular Avenue, Paoli, Pennsylvania; and Ms. Reney's and Mr.
11 Shpeherd's business address is 125 High Street, Boston, Massachusetts.

12 Q. Please describe the current position, educational background and professional
13 experience of each panel member.

14 A. **Mr. Lawrence R. Craft** is a Manager in Verizon's Security Department, and is
15 responsible for Verizon East's (*i.e.*, former Bell Atlantic jurisdictions') Physical
16 Security/Access Control function, which establishes Corporate physical security

⁵ In addition, to protect the collocated carrier's equipment in a physical collocation environment, Verizon MA may offers carriers the option of requesting *covered* cages, at their own expense, in traditional physical collocation arrangements. Collocated carriers also already have the option of cabinetizing their equipment as an added security measure with cageless collocation. However, it is not technically, operationally or economically feasible for Verizon MA to partition all of its CO equipment to protect the network from harm because of the manner in which the Company' network (*i.e.*, CO equipment) configuration has evolved over time.

1 standards, physical security planning, and daily security operations for most of the
2 Verizon East area. Since 1996, he has held various security assignments in
3 International Security, Physical Security, and Access Control, and currently acts
4 as a liaison with certain governmental organizations in his capacity as Verizon's
5 Corporate Security Control Officer for the U.S. Government Industrial Security
6 Program. Mr. Craft has 24 years experience in telecommunications, as an
7 employee of the Chesapeake and Potomac ("C&P") Telephone Company of West
8 Virginia, Bell Atlantic and Verizon. During that time, he has held management
9 positions in various departments, including Supply Management, Motor Vehicle
10 Management, Real Estate, Administration, Finance and Security. Mr. Craft is a
11 retired United States Army Reservist with 20 years honorable service. He earned
12 his Bachelor's degree from West Virginia University, with post-graduate studies
13 toward a Masters of International Administration at Central Michigan University.

14 **Mr. Francesco S. Mattera** has held his current position as a Director of Network
15 Operations since July 2000. In that capacity, he is responsible for deploying new
16 technology architectures and developing the associated processes for Verizon's
17 Network Operations Department. Mr. Mattera earned both a Bachelor of Science
18 degree and a Masters in Business Administration ("MBA") from Drexel
19 University. He has 15 years of experience in Bell Atlantic and Verizon
20 Communications. During that time, Mr. Mattera has held a variety of positions of
21 increasing responsibility in Engineering, International, and Network Operations.

1 **Ms. Lynelle Reney** is Director of Collocation for Verizon East. In her current
2 position, she is responsible for overseeing all functions related to collocation
3 application receipt and processing, including issuing acknowledgment letters,
4 cost/schedule letters and notifications to competitive local exchange carriers
5 ("CLECs"), and for overseeing the billing of all collocation arrangements and the
6 Collocation Care Center ("CCC"), which provides ongoing support to collocators,
7 including providing and managing ID and access cards.. Ms. Reney has 17 years
8 of experience in New England Telephone, NYNEX, Bell Atlantic and Verizon.
9 During that time, she has been employed in various departments, including Real
10 Estate, Equipment Installation, and Corporate Services. Ms. Reney earned both a
11 Bachelor's degree and MBA from the University of Rhode Island. She has
12 testified before the Pennsylvania Public Utility Commission in Docket No. P-
13 00001852 (a dispute resolution proceeding regarding the provisioning and billing
14 of DC power), and has submitted direct written testimony as a member of
15 Verizon's witness panel in Massachusetts in D.T.E. 98-57 III and D.T.E. 01-39.

16 **Mr. Peter Shepherd** is Director - Regulatory for Verizon. He has 32 years of
17 experience in New England Telephone, NYNEX, Bell Atlantic and Verizon.
18 During his employment, Mr. Shepherd has held various positions in the Network,
19 Marketing and Regulatory Departments. His responsibilities in those various
20 positions include Central Office operations, Independent Telephone Company
21 business relations and joint network planning, access services product
22 management and pricing, service costs and regulatory matters dealing with rate

1 design, pricing rules, and regulatory structure in Maine, Massachusetts, New
2 Hampshire, Rhode Island and Vermont. Mr. Shepherd holds a Bachelor of
3 Science degree and an MBA from Babson College. He has previously testified in
4 Maine, Massachusetts, New Hampshire, Rhode Island and Vermont on alternative
5 forms of regulation, rate case, access charges, rates & costs, price floors and
6 special contracts.

7 **CURRENT SECURITY MEASURES FOR COLLOCATION ARRANGEMENTS**

8 Q. Please identify the different forms of collocation arrangements currently available
9 in Massachusetts.

10 A. Verizon MA offers the following types of collocation arrangements: (1)
11 traditional "caged" physical collocation, (2) secured collocation open
12 environment ("SCOPE"); (3) cageless collocation open environment ("CCOE");
13 (4) virtual collocation; (5) adjacent collocation; (6) shared collocation; (7)
14 microwave collocation; and (8) collocation at remote terminal equipment
15 enclosures ("CRTEE"). Currently, Verizon MA provides 536 traditional "caged"
16 physical collocation arrangements, 385 SCOPE, 27 CCOE, four virtual
17 collocation arrangements, and one shared collocation arrangement located in a
18 total of 169 COs in Massachusetts.⁶

⁶ Currently, Verizon MA has not provisioned any CRTEE, adjacent or microwave collocation arrangements. However, the Company is currently processing one customer's physical collocation application for microwave entrance facilities in Massachusetts.

1 Q. Please describe briefly the different characteristics of Verizon MA's various
2 collocation arrangements.

3 A. The traditional "caged" physical collocation arrangement allows a CLEC to place
4 its equipment in a wire mesh enclosure or cage – available in varying standard
5 sizes (*e.g.*, 25, 100 or 300 square feet) – within a segregated and secured,
6 environmentally conditioned area of Verizon MA's CO. By contrast, SCOPE and
7 CCOE are forms of physical collocation that allow the placement of CLEC
8 equipment in single bay increments⁷ in Verizon's CO without requiring an
9 individual cage or wire mesh enclosure. While SCOPE arrangements are placed
10 in the same segregated and secured, environmentally conditioned area used for
11 traditional "caged" physical collocation, CCOE arrangements may not require the
12 construction of a separate collocation area, *e.g.*, a separate room or isolated space
13 segregated from Verizon's own network equipment. Rather, due to space
14 limitations, CCOE may be located in non-secured, non-separated space within
15 Verizon's CO premises.

16 Unlike physical collocation, a virtual collocation arrangement does not require
17 Verizon MA to assign a portion of the floor space in the CO to the collocated
18 carrier for its exclusive use to install, operate and maintain its own equipment.
19 Rather, the CLEC leases its equipment to Verizon MA to install, maintain,

⁷ "Single-bay increments" means that a CLEC can purchase space in increments small enough to collocate a single rack, or bay, of equipment.

1 upgrade and repair on Verizon's premises under the direction - and for the benefit
2 - of the CLEC.

3 While a CLEC cannot directly access the collocated equipment, nor enter
4 Verizon's premises, a CLEC can, however, establish comparable systems used in
5 a physical collocation environment to access remotely its virtually collocated
6 equipment for monitoring, provisioning and testing purposes. Virtual collocation
7 is provided "where physical collocation is not practical for technical reasons or
8 because of space limitations" in a particular CO, and is also available as an option
9 for a CLEC in *any* CO.⁸ 47 U.S. §251(c)(6).

10 Adjacent collocation is offered when there is no space available within Verizon's
11 CO for physical collocation. Under adjacent collocation, the CLEC may
12 construct or otherwise procure controlled environmental vaults ("CEV") or
13 similar adjacent structures, where technically feasible, using Verizon approved
14 vendors.

15 Shared collocation enables a CLEC to share its "caged" physical collocation
16 space with other CLECs under a subleasing arrangement. Microwave collocation
17 enables CLECs to interconnect their collocation equipment with Verizon's

⁸ Security and network reliability issues are valid factors to consider in determining whether physical collocation is technically feasible. See e.g., *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, FCC 96-325, *First Order and Report* (rel. August 1996), ¶ 203 ("Local Competition Order"); see also CC Docket Nos. 01-338, 96-98, 98-147, FCC 01-361, *Notice of Proposed Rulemaking* (rel. December 20, 2001), ¶ 33 .

1 facilities using microwave antennae on the rooftop of Verizon MA's COs.
2 Microwave facilities provide an alternative transport option to fiber facilities to a
3 collocation arrangement.

4 Finally, CRTEE provide arrangements in which CLEC equipment can be placed
5 in Telephone Company remote terminal equipment enclosures ("RTEEs").
6 CRTEE can be provided on either a physical or virtual arrangement basis. RTEEs
7 include controlled environment vaults, huts, cabinets and remote terminals in
8 buildings or similar structures owned or leased by Verizon MA to house the
9 Company's network facilities.

10 Q. What security measures may Verizon MA currently apply under the various
11 collocation arrangements?

12 A. In accordance with 47 C.F.R. §51.323(i), Verizon may require reasonable security
13 arrangements to protect its own equipment and ensure network reliability.⁹ The
14 security arrangements imposed may only be as stringent as those it applies to
15 itself or its authorized vendors. Verizon must also allow CLECs 24 hour per day,
16 seven day per week access to their collocated equipment without the requirement
17 of a security escort.

18 Verizon MA may adopt reasonable security measures for its collocation
19 arrangements, including those set forth in 47 C.F.R. §51.323(i): (1) installing

⁹ *FCC Advanced Services Order*, at ¶46 (finding that the ILEC "may take reasonable steps to protect its own equipment"), cited favorably in *GTE Service Corporation*, 205 F.3d at 426.

1 security cameras or monitoring systems; (2) requiring CLEC personnel's use of
2 badges with computerized tracking systems; (3) requiring CLEC personnel to
3 undergo the same or equivalent level of security training as Verizon's own
4 employees or authorized vendors, provided that the CLEC is not required to
5 receive such training solely from Verizon; (4) restricting physical collocation
6 space to space that is physically separated from space housing Verizon's
7 equipment;¹⁰ and (5) requiring access through a central or separate entrance
8 provided that Verizon affiliates and subsidiaries have the same requirement.¹¹ In
9 providing reasonable security arrangements, Verizon MA may require CLECs to
10 pay only for the least expensive, effective security option that is viable for the
11 physical collocation space assigned.

12 Q. How do the Department's findings in D.T.E. 98-57, Phase I compare with the
13 FCC's requirements in 47 C.F.R. §51.323?

¹⁰ This type of security measure is subject to the following conditions: (i) either legitimate security concerns, or operational constraints unrelated to the incumbent's or any of its affiliates' or subsidiaries competitive concerns, warrant such separation; (ii) any physical collocation space assigned to an affiliate or subsidiary of the incumbent LEC is separated from space housing the incumbent LEC's equipment; (iii) the separated space will be available in the same time frame as, or a shorter time frame than, non-separated space; (iv) the cost of the separated space to the requesting carrier will not be materially higher than the cost of non-separated space; and (v) the separated space is comparable, from a technical and engineering standpoint, to non-separated space. 47 C.F.R. §51.323(i)(4).

¹¹ The following conditions must be met to apply this security measure: (i) construction of a separate entrance is technically feasible; (ii) either legitimate security concerns, or operational constraints unrelated to the incumbent's or any of its affiliates' or subsidiaries competitive concerns, warrant such separation; (iii) construction of a separate entrance will not artificially delay collocation provisioning; and (iv) construction of a separate entrance will not materially increase the requesting carrier's costs. 47 C.F.R. §51.323(i)(4).

1 A. The Department's findings on collocation security measures in its D.T.E. 98-57,
2 Phase I, Orders are generally consistent with the FCC's requirements¹² under 47
3 C.F.R.. For example, the Department rejected an escort requirement for physical
4 collocation¹³ because it would "unduly impede a CLEC's access to its equipment
5 and increase costs." *Reconsideration Order*, at 13; *see also Phase I-B Order*, at
6 19. The only exception is that Verizon may provide escorts, at no cost to the
7 CLECs, prior to implementation of permanent security measures at a CO, in
8 certain limited instances. *Order*, at 28.

9 In clarifying the issue of CLEC access beyond their collocation arrangement, the
10 Department stated that Verizon MA may prohibit a CLEC from access to any area
11 within the CO where the CLEC does not have any equipment located. The
12 Department further clarified that it does not intend to prohibit Verizon from
13 deploying an efficient mix of security measures within a CO, but rather to prevent
14 the deployment of duplicative security measures that would increase the costs of
15 collocation without providing a necessary security benefit. *Reconsideration*

¹² This includes the use of security cameras, electronic card readers, and badge tracking systems. *Order*, at 27. Other security measures permitted by the Department include: (1) a 30-minute prior notification by the CLEC to Verizon before dispatching a technician is sufficient for both manned and unmanned central offices; and (2) the designation of a specific (even separate) entrance for CLEC use during work stoppages. *Id.* at 32, 39.

¹³ Verizon MA, however, disagrees with the Department's conclusion that the existing FCC rules prohibit escorts for CRTEE. *Phase I-B Order*, at 19. The issue of requiring escorted access to CEVs and huts is currently under review at the FCC. *See e.g., Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order on Reconsideration and Second Further Notice of Proposed Rulemaking in CC Docket No. 98-147 and Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-98, FCC 00-297, at ¶ 104 (rel. Aug. 10, 2000) ("*FCC Reconsideration Order*").

1 *Order*, at 15. Finally, the Department issued a stay on its earlier directives
2 regarding the construction of separate collocation rooms, the commingling of
3 equipment, and conversions from virtual to cageless collocation, pending a final
4 decision by the FCC on those issues. *Reconsideration Order*, at 15.

5 Q. What is the status of the FCC's collocation security provisions under 47 C.F.R.
6 51.323?

7 A. Those provisions, along with other collocation issues decided in the *FCC Remand*
8 *Order*, issued August 8, 2001, are pending review before the U.S. Court of
9 Appeals for the D.C. Circuit (the "Court") in Nos. 01-1371 and 01-1379. The
10 basis for that appeal is that, on remand from the Court's decision in *GTE Service*
11 *Corporation*, the FCC re-imposed highly intrusive space allocation and access
12 requirements for "physical collocation" on incumbent local exchange carriers
13 ("ILEC") that grant unwarranted rights to CLECs to control the specific location
14 of their equipment within the ILEC's premises and to access that collocated
15 equipment.¹⁴ The petitioners¹⁵ argue, *inter alia*, that in doing so, the *FCC*
16 *Remand Order* - which was released one month before the events of September
17 11th - effectively establishes a default rule that forecloses ILECs from requiring

¹⁴ The Court in *GTE Service Corporation* found "nothing in § 251(c)(6)" to support the FCC's requirement "that competitors, over the objection of LEC property owners, are free to pick and choose preferred space on the LEC's premises, subject only to technical feasibility." 205 F.3d at 426. Nor did it find authority for the FCC to prohibit ILECs from requiring competitors to place their equipment in segregated rooms or floors or to use separate entrances. *Id.*

¹⁵ The petitioners to this appeal include the Verizon Telephone Companies, BellSouth Corporation and SBC Communications, Inc.

1 segregated space and separate entrances, thereby unduly interfering with the
2 ILEC's fundamental right to manage effectively the use of its property and its
3 obligations to protect the security of its telecommunications infrastructure and the
4 safety of its employees.

5 Notwithstanding the FCC conditions set forth in 47 C.F.R. § 51.323, which are
6 the subject of this appellate review, Verizon MA requests that the Department
7 permit the Company to establish the proposed *pro-active* security procedures that
8 would secure and segregate – and, therefore, better protect – the
9 telecommunications network infrastructure from harm – both unintentional and
10 deliberate. These are reasonable and necessary security measures, particularly in
11 light of legitimately heightened security concerns resulting from the events of
12 September 11th. Accordingly, the Department should join with Verizon to ensure
13 that additional security measures can be implemented, and seek appropriate
14 changes to FCC rules, if necessary.

15 Q. Please identify the types of security methods currently used by Verizon MA at
16 collocated sites.

17 A. Verizon MA uses the following security methods for providing CLECs' access to
18 their collocated space, as well as shared facilities(e.g., access to loading docks,
19 temporary staging areas and restrooms), within Verizon's CO: (1) non-Verizon
20 employee collocation identification (ID) cards; (2) electronic card reader access
21 systems; (3) key controlled access systems; (4) directional signage and floor

1 markings (e.g., floor tape); and/or (5) access through guarded entries. In addition,
2 Verizon MA deploys security cameras, *i.e.*, Closed Circuit Television ("CCTV"),
3 in COs with unsecured CCOE arrangements or where access to shared facilities is
4 only available by means of unsecured open passage through Verizon MA's
5 equipment areas. A detailed description of Verizon MA's administration and
6 practices for these various security devices is appended as Attachment 1 to this
7 testimony.

8 CLECs and their authorized employees, agents and contractors who have a
9 legitimate need to access the CLEC's own physical collocation arrangement must
10 abide by all Verizon security and safety practices while on Verizon's premises.
11 Verizon's current practices are available to CLECs on the Company's website at
12 <http://128.11.40.241/east/wholesale/html/pdfs/RSECOL00.pdf>. Violators are
13 subject to removal and termination of all access privileges.

14 Q. Does Verizon MA consider its current collocation security measures to provide
15 adequate protection from harm to its network at collocation sites?

16 A. No. Although Verizon MA has always had security concerns with physical
17 collocation, those concerns are exacerbated in the current world environment.¹⁶

¹⁶ See e.g., Michael K. Powell, Chairman, FCC, *Digital Broadband Migration Part II*, at 11, Remarks at FCC Press Conference (Oct. 23, 2001) ("Securing Our Nation's Communications Infrastructure" is a "Principal Objective" of "Homeland Security"), at www.fcc.gov/Speeches/Powell/2001/spmkp109.pdf; see also Young & Berman, *Exposed Wires: Trade Center Attack Shows Vulnerability of Telecom Network*, Wall St. J., Oct. 19, 2001. These materials are appended as Attachment 2 to this testimony.

1 As recognized by the Department in initiating this investigation, because of recent
2 events, there is a need to reexamine and strengthen existing security practices and
3 procedures relating to CLEC access to collocated sites. While the current security
4 methods that Verizon is permitted to use to protect its network at collocated sites
5 may deter some security violations, they primarily enable Verizon MA to detect
6 and respond to security violations “after-the-fact.” Moreover, the current security
7 tracking measures simply will not prevent some individuals from causing either
8 intentional or unintentional damage to Verizon MA’s network. Verizon MA,
9 therefore, proposes to take more pro-active steps to protect its infrastructure —
10 the integrity of which is critical for the reliable, uninterrupted provision of voice,
11 data, and emergency telecommunications services to the public. Without these
12 additional security measures, the potential personal and financial loss to
13 consumers and businesses, including other carriers and governmental entities,
14 could be substantial and far-reaching.

15 Q. Please explain why security cameras alone are not an effective means of
16 monitoring and preventing accidents or damage to Verizon MA’s network in the
17 CO.

18 A. The use of cameras *alone* is neither an effective nor efficient pro-active security
19 method. First, multiple cameras positioned in many locations throughout a CO
20 would be required to capture all potential activity – and even then it would be
21 virtually impossible to capture *every* angle in a CO to prevent or even sufficiently

1 deter potentially harmful activity.¹⁷ Second, Verizon MA primarily uses digital
2 cameras, not analog cameras that provide real-time monitoring. Third, the
3 number of individuals required per CO to observe the video screens with real-time
4 monitoring would be substantial and extremely costly. This is compounded by
5 the need to monitor many COs.

6 For example, since CLECs can access COs 24 hours a day, seven days a week, a
7 minimum of four guards per collocated CO (or one per shift) would be required to
8 provide real-time monitoring. Moreover, to prevent incidents from occurring, the
9 posted guard must be sufficiently knowledgeable to identify suspicious activities,
10 and adequately trained to intervene if an illegal or disruptive action is observed.
11 Accordingly, although cameras may be useful to record events – and even deter
12 crimes in certain cases, cameras *alone* are not enough as a pro-active security
13 measure to prevent unauthorized access to a physically collocated CO
14 environment.

15 Q. Please explain why electronic card reader access systems alone are not an
16 effective pro-active security method.

¹⁷ It is particularly difficult for cameras to cover reasonably every square inch of a physical facility in a CO environment, where many obstructions (*e.g.*, tall equipment bays and line-ups, ladders, and bulky equipment) may block the camera's view and make it impossible to determine precisely what an individual is doing. Indeed, even if enough cameras were installed to capture *every* angle in a CO, the quality and/or distance of the picture would simply not be sufficient to capture an individual's precise movements, and may not even be sufficient to determine the exact piece of equipment being worked on or tampered with.

1 A. Although electronic access card readers may provide some level of security to
2 deter and detect security breaches when combined with other methods, such as
3 cameras or partitions, they alone are not enough to prevent accidents or damage to
4 the network infrastructure. While security access cards are intended to prevent
5 unauthorized personnel from accessing certain sections of the CO and to provide
6 Verizon with a record of who enters its offices, they do not necessarily and
7 conclusively identify the “user.”

8 For example, Verizon is aware of instances where CLECs have not reported lost
9 access cards or returned cards given to former employees and representatives.
10 Verizon is also aware of CLEC personnel or agents using cards belonging to
11 others.¹⁸ The ability to “share” access cards renders them useless at determining
12 responsibility for damage to the network. Moreover, even if access cards are used
13 properly, they may only provide Verizon with a witness or suspect for accidents
14 or intentional bad acts. Thus, because the negligent use or misappropriation of
15 access cards is undetected until “after-the-fact,” access cards may have limited
16 use as either a practical or effective pro-active security measure.

17 In addition, card readers do not show when an individual leaves a CO, thus
18 making it impossible to determine the duration of an individual’s stay or if he/she

¹⁸ For example, there have been incidents where CLEC employees have entered the CO without an authorized identification badge, but with another CLEC employee’s electronic access card. Moreover, at many Verizon MA COs, secondary exits are not monitored since they serve solely as exits. Such breaches, however, often go undetected and unpunished because Verizon does not have the same recourse against CLEC violators as it does with its own employees or vendors (*i.e.*, Verizon cannot discipline a CLEC violator or terminate his/her employment).

1 was in the office when a security breach occurred. Nor do card readers indicate
2 when individuals "tailgate" other CLECs or vendors, *i.e.*, walk in behind them
3 without swiping an access card across the reader. In the future, CLEC personnel
4 could be compromised by giving CO access to an outside entity that is not
5 authorized to enter Verizon's CO and does not understand the disruption or
6 damage that could be done to by certain activities, which could affect critical
7 facilities. Indeed, card reader systems can only be fully effective when used in
8 conjunction with physical barriers or partitions that separate CLEC and Verizon
9 MA equipment space and prevent unauthorized access to or through Verizon
10 MA's equipment areas in the CO.

11 Q. Has Verizon MA experienced serious security violations in Massachusetts to
12 warrant the adoption of more stringent security measures?

13 A. While Verizon has fortunately not experienced egregious and harmful security
14 violations in Massachusetts, there have been serious violations elsewhere, some of
15 which have resulted in service interruptions for many end user and carrier
16 customers. Whether the result of carelessness or blatant disregard for existing
17 security rules, these CLEC violations raise legitimate security concerns and
18 presage what could occur anytime in Massachusetts under the current collocation
19 security procedures.

20 For example, across the country, Verizon has documented such violations as
21 unauthorized entry into CO areas outside of the CLEC's collocated equipment

1 space; theft and vandalism of CLEC equipment resulting from unauthorized
2 access to a CLEC's cage, theft and vandalism of Verizon equipment in secured
3 and unsecured areas of the CO; cables cut on frames; CLEC entry without an
4 authorized identification badge or electronic access card; CLEC entry with
5 unauthorized use of another's identification badge or electronic access card; doors
6 propped open or locks taped; such acts of vandalism as broken locks on doors or
7 collocation cages, card readers destroyed, or power systems disabled;
8 unauthorized CLEC testing on Verizon's side of the equipment; evidence of drug
9 use on the CO premises; and other improper conduct..¹⁹

10 The numerous different collocators, their employees and agents increase the sheer
11 number of unfamiliar personnel accessing the CO. This, in turn, vastly increases
12 the probability of accidents, mistakes, and outright wrongdoing and, therefore, the
13 exposure to financial harm and damage to Verizon's network. CLEC personnel
14 may also have less incentive to exercise care with Verizon's or other collocated
15 carriers' equipment, or may be less trained or less familiar with the CO
16 environment and the potential incidental harm to the various types of CO
17 equipment.

¹⁹

Verizon is aware of at least one instance in Washington state where a security violation, [e.g., the CLEC entered Verizon's Battery Distribution Fuse Bay ("BDFB") in a secured area to turn up power in its collocated equipment) caused a service outage in a remote switch, interrupting service to approximately 9,000 customers. In addition, Verizon has experienced cases where CLEC personnel have broken into locked power rooms in the Company's CO in an attempt to work on power distribution equipment (e.g., the power distribution panel), creating a serious safety risk as well as the potential for widespread service interruptions. Fortunately, these failed attempts to

1 Verizon MA cannot require security escorts for CLECs to access their collocated
2 equipment, which is permitted 24 hours a day, seven days a week. This
3 unrestricted access, combined with unseparated space and/or commingled
4 equipment, creates security risks that increase the likelihood of accidents –
5 whether inadvertent or intentional – and the threat of sabotage. Accordingly,
6 additional security procedures must be adopted to protect Verizon's network.

7 **VERIZON MA'S PROPOSED COLLOCATION SECURITY PLAN**

8 Q. What additional security measures does Verizon MA propose in this proceeding
9 for its collocated sites in Massachusetts?

10 A. Verizon MA proposes the following: (1) establishing, for all forms of physical
11 collocation (caged and cageless) separate space (*e.g.*, separate rooms, floors,
12 entrances and/or pathways to such areas) that secures and segregates collocators'
13 equipment from Verizon MA's network facilities and prevents the commingling
14 of collocators' equipment in the same areas as Verizon MA's equipment on an
15 unseparated or unsecured basis; (2) relocating existing *unsecured* CCOE
16 arrangements to secured, separated areas, where space permits, or otherwise
17 converting them to virtual collocation arrangements; (3) providing CLECs with
18 reasonable access to shared facilities outside the secured and segregated
19 collocation space where partitioning of Verizon MA's equipment is feasible; (4)

work on Verizon's power equipment did not result in injury to the workers or cause damage to the network.